TRENDS IN AGRICULTURAL HISTORY
IN THE PEOPLE'S REPUBLIC OF CHINA

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Chinese historical scholarship has been marked for two millennia by its over-
riding respect for the written word. Textual collation and analysis were accepted
as the key to understanding the past—not unreasonably, perhaps, in a culture
where so many early documents have survived. Traditional historical method
generally had the virtue of providing a comprehensive list of surviving literary
references to a topic, together with philological analyses of obscure terms; in
other words, it produced excellent raw material for historical study. But it was
uncritical of the textual material (rarely making any attempt to assess whether a
text was reliable or representative), made little use of non-literary evidence, and
generally failed to situate a text in its broad historical or socio-economic context.
This lack of critical and comparative method affected all branches of history.
It especially affected the history of technology, where non-textual evidence is
often crucial and often conflicts with accounts written by literati ignorant of the
subject, and where the relative significance of various data can be assessed only by
careful consideration of social and economic factors.

In the early decades of this century Chinese historians of agriculture generally
fell into two exclusive categories. Firstly there were the economic historians who
sifted standard and local histories for statements on taxation, land allotments
and tenancy, which they frequently accepted at face value in their histories of
tenurial relations or government land policies. Secondly there were the historians
of agricultural technology, usually classicists and philologists by training, who
devoted themselves to reconstructing ancient Chinese tools by the examination
of Shang graphs and of archaic texts and their later commentaries.

Even before the establishment of the People’s Republic one could discern the
growing influence on agricultural historians of Marxist thought. Both schools
gradually stressed the importance of the connections between technology and
social relations, and drew on each other for material. The technological historians
began to show a heightened appreciation of popular knowledge and skills. In the
1950’s and early 1960’s many scientists joined the ranks of the historians of agri-
culture. Interest was focused on the scientific content of the numerous old agri-
cultural treatises still extant. Modern editions of many old texts were published,
usually incorporating scientific analyses of old farming precepts or traditional
peasant practices, as well as the more usual textual commentaries. The heightened
interest of scientists in agricultural history was reflected in the organization of
research, most of which was now carried out in small centers attached to agri-
cultural institutes or universities. Agricultural history flourished in China during
the 1950’s and 1960’s. Important centers of research were associated with such
outstanding scholars as Xia Weiying, Wang Yulu and Wang Yulu at the North
China Agricultural College, and Shang Shenghan at the
Northwestern Agricultural College in Xi'an, Liang Jiamian at the South China Agricultural College in Guangzhou, and Wan Guoding at the Agricultural Heritage Research Center attached to the Agricultural College in Nanjing. The primary aim of this last center was a comprehensive series of source books, each containing all known references in Chinese to a particular economic plant or animal. In the late 1950's and early 1960's eight of these compendia, covering different cereals, the oil crops, citrus fruits and cotton, were published.

During the years of the Cultural Revolution academic work was disrupted and many scholars suffered severely. Publication of historical material based on textual analysis almost ceased, but in compensation archaeological studies flourished as never before. Both prehistoric and historic sites were excavated all over China at an amazing rate. The archaeological journals were filled with reports (mostly preliminary) on tombs, foundries, habitats and kilns, often accidentally discovered during the building of a road or boring of a well. Because so many of the sites were village settlements or workshops rather than royal tombs they yielded much that was of interest to agricultural historians. In some cases the finds necessitated complete revision of long-cherished theories. For example the discovery in several provinces of early Han cast-iron mouldboards showed that ox-drawn ploughs were not as late an invention in China as had generally been thought. The discovery of large quantities of cultivated rice at Hemudu, Zhejiang (early 5th millennium B.C.), indicated that South China did not owe its knowledge of agriculture to colonists from the Yellow River area, and that cultural contacts in early China were far more complicated than had originally been thought.

The enthusiasm that the Chinese people brought to uncovering their past has now been tempered by the realization that excavation and preservation techniques are sometimes inadequate. Many of the more important sites will await excavation for some time until preservation techniques are perfected, but reports of minor sites still keep the archaeological journals full.

Since 1977 academic life in China has gradually returned to normal. Most of the research groups and institutes I visited had been reestablished in the last eighteen months or so. Research into the history of agriculture is thriving once again, with exhibitions and conferences planned locally all over the country as well as on a national scale, and a great range of new publications is appearing. The principal centers of research remain those in the Agricultural Colleges of Beijing, Nanjing, Xi'an and Guangzhou, as well as the Northeastern Agricultural College in Shenyang. Many other agricultural institutions have formed research groups. Sadly several of the historians who were outstanding before the Cultural Revolution are now dead: Shi Shenghan of Xi'an, Wan Guoding of Nanjing, Wang Yuhu, and the polymath Liu Xianxhou of Beijing's Qinghua University, to name but four. Others, like Hu Daojing and Liang Jiamian, though old and in poor health, continue their work with the able support of younger scholars usually in their forties and fifties. I did not meet anyone much younger than this engaged in research of a historical nature.
Some interesting trends in agricultural history have now become apparent. Although several critical editions of Chinese agricultural classics are being reissued and some new ones brought out, textual research is much less heavily emphasized than before 1966. Scholars look to texts to corroborate hypotheses based on recent archaeological evidence rather than the other way around, particularly when studying the earlier periods of Chinese history. Relevant archaeological evidence is most abundant for the periods from the neolithic to the Han, and consistently shows marked differences in material culture between different regions of China. The attempt to interpret these early cultures and the patterns of contact and diffusion between them has led Chinese scholars to make much more use of comparative material, of ethnographic and linguistic studies, and general theories of technological development and its relation to the natural and social environments. The new approach is also gaining popularity among those studying more recent periods. Far more effort is made than in the past to integrate institutional, economic and technological history.

An interdisciplinary approach is pertinent not only to the past but to the future as envisaged in China's new economic policies. Before committing themselves to a particular path of modernization, China's agricultural experts are anxious to consider its full implications. Not only are they intent on avoiding overenthusiastic mechanization and the thoughtless rejection of indigenous technologies which may be commendable with respect to energy conservation or long-term ecological balance; they also wish to understand the economic and social implications of such technological change. In order to do so, many Chinese agriculturalists are scanning their past. Historical research groups are springing up side by side with ecology departments in agricultural institutions all over China.

Chinese agricultural historians, as in other fields, are keen to make contact with their counterparts abroad. Many of the institutions I visited were eager to form permanent links with institutions in the West and to establish exchange of publications, reciprocal visits, etc. Although Chinese libraries do their best to obtain foreign materials they often find this extremely difficult given their lack of both funds and information, and they tend to rely on personal contacts rather than systematic purchase. The Chinese have very warm relations with Japanese agricultural historians, most of whom study China as well as Japan and the Far East generally. Japanese historians regularly donate their publications to the main Chinese research centers. Work by Western agricultural historians, however, whether related to China or to other parts of the world, is almost entirely unknown. The Chinese would certainly welcome any contacts, whether individual or institutional.

Museums
I was able to visit museums in Guangzhou, Kunming, Chengdu, Xi'an, Beijing, Nanjing, Suzhou and Hangzhou. Local museums in China, unlike in Europe, are much frequented by the citizens themselves, who have a lively interest in their past. Even more fascinating to them than cultural relics, however, was the sight
of a foreigner taking notes in Chinese; I often felt that I was the chief exhibit on
display in some of the smaller museums.

Provincial and municipal museums, like the Historical Museum in Beijing, are
laid out in historical sequence and with a heavy emphasis on material culture.
Many of the objects on display are from recent excavations. Although the
choicest pieces are frequently sent to Beijing, they are replaced with labelled
copies, usually of high quality. The provincial museums provide a vivid and
immediate image of a local culture that can never be gleaned from the archaelo-
logical journals. As an agricultural historian I was particularly struck by the
southern collections. One surprising fact apparent there is the importance
throughout the 1st millennium B.C. of bronze tools and utensils in everyday
life, unlike in the north where bronze was reserved for weapons and ceremonial
vessels. I was also impressed by the Hemudu collection on display in the
Zhejiang provincial museum in Hangzhou, which vividly demonstrates the advan-
ced and idiosyncratic nature of southeastern neolithic culture and its independ-
ence from the contemporary cultures of the Yellow River area.

The quality of display and labelling varies from place to place, but on the
whole it is adequate. Each piece is labelled with its provenance, date of excava-
tion and period of manufacture; large placards describe general cultural develop-
ments within the region and give details of cultural contacts, trade routes, etc.
The one puzzling exception is the neolithic monument at Banpo半坡村, designa-
ted a national monument, where all the best pieces have been taken to Beijing
and what remains is poorly displayed and usually labelled no more precisely than
‘pot, neolithic.’ Museum staff were generally well-read, well-informed and hospit-
able.

In addition to permanent general displays, a national exhibition of agricultural
history is planned by the Ministry of Agriculture. Material from all over the
country will be assembled and mounted in Beijing by a nationwide panel of
experts. Such an exhibition on a smaller scale has already been held in Nanjing
in June 1980: it was entitled Scientific and Technological Achieve-
ments of Ancient Chinese Agriculture and was organized jointly by the Jiangxi
Historical Museum and the Jiangxi Science and Technology Group.

Conference on Agricultural History

A national conference on agricultural history is planned for the near future,
and will probably be held in summer 1981. A preparatory meeting was held in
Beijing from 13 to 26 October 1980. The conference will cover a very wide
range of topics including planning and economic history, ecology, forestry, and
sericulture, as well as the more usual topics, with over one hundred participants.
Contributions will include:

Hu Daojing 胡道静 of Shanghai: “Three Phases in Xu Guangqi’s 徐光啟 Agri-
ultural Experience”: “Reconstructing the Model on which Three Yuan Agri-
cultural Works Were Based.”

Zhang Lüpeng 张履鹏 of Henan: “Distribution of Agricultural Species in Ancient China.”

Guo Wentao 郭文韬 of Nanjing: “Development of Agrarian Laws in Ancient China.”

Li Di 李迪 of Inner Mongolia: “Agricultural Regulations in Hululie and Yuan Agricultural Technology.”

Shi Nianhai 史念海 of Shaanxi: “Changes in the Loess Plateau and their Effect on the Relative Distribution of Arable, Forest and Pasture Land.”


Zhou Shirong 周世荣 of Hunan: “Han Agricultural Science as Seen in the Texts from Mawangdui.”

Publication Projects

The most important projected publication on agricultural history is the History of Chinese Agricultural Science and Technology 中国农业科学技术史, which should be completed within a year or two. The work is organized by the Agricultural Ministry through the regional research centers, each of which has responsibility for a particular section. After much debate as to the relative merits of chronological versus topical treatment, the chronological form was chosen. Eight periods are identified: 1) agricultural origins; 2) Xia to Western Zhou; 3) Chunqiu and Warring States; 4) Qin and Han; 5) Wei, Jin and Nanbei; 6) Sui and Tang; 7) Song and Yuan; 8) Ming and Qing. Within these periods individual topics such as climate, crops or fertility will be treated by different specialists. For example Guo Wentao of Nanjing will contribute an essay on agricultural technology in the Chunqiu and Warring States, Ma Zongshen 马宗申 of Xi’an will write on the expansion of agriculture in the Qin and Han, Hu Daojing of Shanghai will write on the derivation of Song and Yuan agricultural treatises, and You Xiuling of Hangzhou will summarize foreign research on pre-agricultural hunting and gathering communities, and on the origins of plant and animal domestication.

The Agricultural Heritage Research Center in Nanjing hopes to resume publication of its series in the near future. They will publish sections on more technological aspects such as water control and agricultural implements before resuming the botanical series.

Wu Deduo 吴德铎 of Shanghai is preparing a critical edition of the 13th century A.D. flora of South China Quan fang bei zu 全方备祖, to be published by the Agricultural Press in a new series of Chinese agricultural classics; the Agricultural Press is also planning a new edition of Ding Ying’s 丁颖 essays on rice, most of which were published in the 1940’s and 1950’s. You Xiuling of Hangzhou is preparing a book of explanations of difficult terminology in the sixth-century agri-
cultural treatise Qi min yao shu 齐民要术; since this is part-time work he does not know when it will be completed. Jin Gongwang 金公望 of Chengdu is working on a translation into Japanese of Liu Xianzhou's 刘仙洲 Zhongguo gudai nongye jixie faming shi 中国古代农业机械发明史 (Science Press, Beijing 1963), to which he intends to add an introduction explaining how recent discoveries require modification of some of Liu's interpretations.

Recent Publications and Re-editions
Nongye cidian 农业辞典 [Agricultural dictionary], Science and Technology Press Jiangsu 1979.
Shi Shenghan 石声汉 (ed.), Liang Han nongshu xuandu 两汉农书选读 [Selected readings from two Han agricultural works, Fan Shenzhi shu 沛胜之书 and Simin yueling 四民月令], Agricultural Press, Beijing 1979 (published posthumously; MS completed 1962).
- Zhouli shu zhong youguan nongye tiaowen de jieshi 周礼书中有关农业条文的解释 [Explanations of the passages relating to agriculture in the Zhouli], Agricultural Press, Beijing 1979 (MS completed 1967).
Wu Feng 吴枫, Zhang Liangcai 张亮采 (compilers), Zhongguo gudai nongye jishu jianshi 中国古代农业技术简史 [Concise history of Chinese agricultural technology], Liaoning People's Press, Shenyang 1979.

Relevant Journals of Recent Appearance
Nongshi yanjiu 农史研究 [Research in agricultural history], edited by the History Research Group of the South China Agricultural College, Guangzhou; published by the Agricultural Press, Beijing.
Shijie nongye 世界农业 [World agriculture], monthly, Agricultural Press, Beijing. This journal welcomes contributions from abroad; please contact: Wang Jipei, Editor, World Agriculture, Agriculture Publishing House, Chao Nei Da Jie no. 130, Beijing, P.R.C.
Zhongguo shi yanjiu 中国史研究 [Chinese historical research], quarterly, Chinese Social Science Press, Beijing.
Zhonghua wenshi luncong 中华文史论丛 [Collected essays on Chinese literature and history], quarterly, Classical Press, Shanghai.

In order to keep the many Chinese scholars concerned abreast of current projects in agricultural history, Guo Wentao of the History of Agricultural Technology Research Center in Nanjing has started a bulletin entitled Nongshi yanjiu dongtai 农史研究动态, of which the first issue appeared in June 1980.

EDITOR'S NOTE

The delay in publication of this number of Chinese Science is particularly reflected in this report on a quickly developing field of research (the MS was received in August 1980, and a revised version in December 1980). In 1981 two issues of another new journal of high scholarly standard have appeared: Nongye kaogu 农业考古, edited by the Jiangxi Provincial Research Center on Agricultural Archeology 江西省中国农业考古研究中心 in the Jiangxi Provincial Museum, and published by the Agricultural Press. It is to be issued each June and December, and is available for foreign subscription. The contents incorporate historical and ethnological as well as archeological research methods, and cover a wide range of general and concrete historical issues, discussions of terminology, and guides to publications and museum holdings.

Another publication of great interest to readers of this report is a special issue of JATBA (Journal d'agriculture traditionelle et de botanique appliquée), July-December 1980, 28: 3-4, published by the Laboratoire d'Ethnobotanique et d'Ethnozoologie, Musée National d'Histoire Naturelle, 57, rue Cuvier, 75005 Paris, France. Devoted to traditional Chinese agriculture, this special issue of nearly 200 pp. was assembled by Georges Metailié of the C.N.R.S. and Francesca Bray. Half of the papers (in French or English) are by Chinese authors and half by European. The volume includes judiciously selected and annotated bibliographies of botany and ethnobotany by Metailié and of agricultural history by Bray. The substantive essays are concerned with sources (Needham & Lu on the Yugong禹贡, Dong Kaichen on the “monthly ordinance 月令” genre) or with particular food crops.